

LISTING OF CLAIMS

1. (Previously Presented) A method for projecting communications relationships within automation solutions comprising:

creating an automation solution using an engineering system by using automation objects;

connecting an output of an automation object to an input of an another automation object, an interconnection for a data source administering a reference to the corresponding output of an automation module, and an interconnection for a data sink administering a reference to the corresponding input of an automation module; and

assigning, after creating an automation solution, the automation objects to physical equipment units of a system, wherein interconnections represent intra-equipment unit communications relationships and wherein communications relationships within an equipment unit is only determined as a result of the assigning.

2. (Previously Presented) The method as claimed in claim 1, wherein the interconnections are assignable with a quality of service wherein specific properties, which are to be fulfilled, are definable for the communications relationships.

3. (Previously Presented) The method as claimed in claim 1, wherein a projected automated solution is downloaded into the system, the download being carried out for each equipment-unit representative in the projection

environment, and wherein each equipment-unit representative is able to communicate with the physical equipment unit in the system via a communications link.

4. (Previously Presented) The method as claimed in claim 3, wherein, in a first step of the download, corresponding run time automation objects in the physical equipment unit are generated for each equipment-unit representative for assigned automation objects, and wherein the communications links described by the interconnections are established in a second step.

5. (Previously Presented) The method as claimed in claim 3, wherein the interconnections are enhanced with information relating to the system, addressing of the source and sink of a communications relationship being expanded with identifiers

- of the physical equipment unit,
- of the run time automation objects and
- of the inputs and outputs of the run time automation objects.

6. (Previously Presented) The method as claimed in claim 3, wherein each equipment-unit representative communicates to its physical counterpart via the enhanced interconnections of its automation objects and wherein each

equipment unit establishes its internal and external communications relationships on the basis of the interconnection information.

7. (Previously Presented) The method as claimed in claim 3, wherein each equipment unit establishes only the communications relationships in which it functions as a source.

8. (Previously Presented) The method as claimed in claim 1, wherein setting up of an interconnection does not cause any changes in the automation objects.

9. (Previously Presented) The method as claimed in claim 1, wherein the equipment-unit representatives in the projection environment satisfy a uniform equipment unit model and form an abstraction of the real equipment units.

10. (Previously Presented) The method as claimed in claim 2, wherein a projected automated solution is downloaded into the system, the download being carried out for each equipment-unit representative in the projection environment, and wherein each equipment-unit representative is able to communicate with the physical equipment unit in the system via a communications link.

11. (Previously Presented) The method as claimed in claim 4, wherein the interconnections are enhanced with information relating to the system, addressing of the source and sink of a communications relationship being expanded with identifiers

- of the physical equipment unit,
- of the run time automation objects and
- of the inputs and outputs of the run time automation objects.

12. (Previously Presented) The method as claimed in claim 10, wherein the interconnections are enhanced with information relating to the system, addressing of the source and sink of a communications relationship being expanded with identifiers

- of the physical equipment unit,
- of the run time automation objects and
- of the inputs and outputs of the run time automation objects.

13. (Previously Presented) The method as claimed in claim 10, wherein each equipment-unit representative communicates to its physical counterpart via the enhanced interconnections of its automation objects and wherein each equipment unit establishes its internal and external communications relationships on the basis of the interconnection information.

14. (Previously Presented) The method as claimed in claim 4, wherein

each equipment-unit representative communicates to its physical counterpart via the enhanced interconnections of its automation objects and wherein each equipment unit establishes its internal and external communications relationships on the basis of the interconnection information.

15. (Previously Presented) The method as claimed in claim 5, wherein each equipment-unit representative communicates to its physical counterpart via the enhanced interconnections of its automation objects and wherein each equipment unit establishes its internal and external communications relationships on the basis of the interconnection information.

16. (Previously Presented) The method as claimed in claim 12, wherein each equipment-unit representative communicates to its physical counterpart via the enhanced interconnections of its automation objects and wherein each equipment unit establishes its internal and external communications relationships on the basis of the interconnection information.

17. (Previously Presented) The method as claimed in claim 3, wherein each equipment unit establishes only the communications relationships in which it functions as a sink.

18. (Previously Presented) The method as claimed in claim 4, wherein each equipment unit establishes only the communications relationships in which it functions as a source.

19. (Previously Presented) The method as claimed in claim 4, wherein each equipment unit establishes only the communications relationships in which it functions as a sink.

20. (Previously Presented) The method as claimed in claim 5, wherein each equipment unit establishes only the communications relationships in which it functions as a source.